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On page 25, please replace the paragraph [00137] with the following amended paragraph:

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Once the source images to be multiplexed have been mapped to the achievable gamut G, the problem of reproduction reduces to the determination of the control values for each of the M colorants for each pixel. This corresponds to an inversion of the system of equations in (1) and in a manner similar to color calibration, the inverse could be pre-computed and stored in N-dimensional look-up tables (LUTs), with one LUT ~~one~~ per colorant (or alternately, a single N-dimensional LUT with M outputs).

On page 38, please replace the paragraph [00168] with the following amended paragraph:

The system of linear equations can be solved to determine a value of  $\mathbf{d}$ , which provides the desired luminance values under the different illuminants (corresponding to the multiplexed images). The individual components of  $\mathbf{d}$ , i.e., the  $d_j(B_j)$  values can then be used with the visual density response for the  $j$ th colorant under the  $j$ th illuminant to determine the control value corresponding to the  $j$ th colorant, i.e.,  $B_j$ . This process is analogous to inverting a one-dimensional tone reproduction curve (1-D TRC) ~~1-D TRC~~. Repeating the process for each colorant provides the complete set of colorant control values required by  $\{B_j\}_{j=1}^M$  that produce the desired set of luminance values under the different illuminants.

On page 55, please replace the paragraph [00234] with the following amended paragraph:

The controller 150 may be constructed as in the form of a manually-operable illuminant selector switch. Alternatively, as illustrated, the controller 150 may be provided in the form of a computer-based control device having an interface 156 connected to source 160, which offers programmable control of the operation of the illuminant source 160. The controller 150 may thus be operated to cause selective activation and deactivation of the illuminant source 160 so as to provide one or more selected fields of illumination 161, 162. Such control may, for example, be accomplished via manual operation of the illuminant source 160 by a human operator, or by programmable control afforded by a computer or similar means.

00236

On page 55-56, please replace the paragraph [00237] with the following amended paragraph:

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Operation of the illuminant source 160 by the controller 150 may proceed according to certain sequenced control functions 158, 159 so as to provide, for example, controlled operation of the illuminant source 160 to afford a field of illumination that varies according to selective characteristics such as: sequential or simultaneous activation and deactivation of selected illuminants, each having a predefined spectral power distribution; controlled variation of the intensity of selected illuminants; or for interactive control according to intervention by an operator of the particular sequence, intensity, or duration of the illuminants. As noted above, the rendered composite image may be constructed to have a plurality of source images encoded therein; for example, of at least first and second patterns of respective first and second colorants. The rendered composite image may be subjected to a temporal sequencing of illumination by respective first and second narrowband illuminants, thus allowing a respective one of the first and second recovered source images 171, 172 to be sequentially distinguishable.